

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 20010071 Cheshire Monitoring Study
Suspended Particles

- ☒ Chain-of-Custody
- ☒ Analysis Request Form(s)*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
 - Analyst (s)
 - Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia A. Griffin 9-25-01
Data Management Coordinator

Rev. 5/4/00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date:

SEP 25 2001

Subject:

Review of Region 5 Data for CHESHIRE MONITORING STUDY

From:

Francis A. Awanya, Chemist *FAA*
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: **20010071**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2001AH08S01, 2001AH08D01, 2001AH08S02, and 2001AH08S03.**

SEP 25 2001
/ /

Data Management Coordinator and Date Received

Date Transmitted: SEP 25 2001

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

Received by and Date / /

Comments:

Data Set Number:	<u>20010071</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>09/24/2001</u>	Analyst:	<u>FAA</u>
		Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on September 19, 2001. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter preparations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters were completed on 9/21/2001.

A tear and scratches were observed in exposed filter Q6280063 (CRL sample I.D number 2001AH08D01). A pinhole size tear was also observed in exposed filter Q6280062 (CRL sample I.D number 2001AH08S03). Small tear was also observed in exposed filter G1006688 (CRL sample I.D number 2001AH08S02). Use those results with caution. Suspended particle results for those samples could be biased low due to loss of particles or filter materials.

Review of suspended particle result for sample 2001AH08D01 (0.0118 g) (exposed filter Q6280063), field duplicate of sample 2001AH08S01 (0.0114 g)(exposed filter Q6280064) indicate that the tear and scratches in filter Q6280063 did not significantly affect recovery of suspended particles collected on those two filters. This assessment is limited to the field duplicate results only. Use the data with caution.

A probable cause for those tear or scratches are activities related to removal of exposed filters from the individual sampling equipment in the field. Use the data with caution.

ENVIRONMENTAL PROTECTION AGENCY

Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60601

PROJ. NO. 01AH08		PROJECT NAME Cheshire Monitoring Study		NO. OF CONTAINERS		Activity Cod 12345 90101A										
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i> <i>Mike Murphy</i>						AIR 20010071										
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	TAG NUMBERS										
DO1	9/4	00:00	X		GUIDING HANDS SCHOOL	2										5-340055 1 to 2
SO1	9/4	00:00	X		GUIDING HANDS SCHOOL	2										5-340054 1 to 2
SO2	9/4	00:00	X		RVHS	2										5-340056 1 to 2
SO3	9/4	00:00	X		ADDAVILLE	2										5-340057 1 to 2
																Guiding Hands School
																Serial # 3012, Pstg Avg = 20.25 inches of H ₂ O
																Serial # 3013, Pstg Avg = 19.5 inches of H ₂ O
																RVHS
																Serial # 3009, Pstg Avg = 15.55 inches of H ₂ O
																Addaville
																Serial # 3011, Pstg Avg = 20.25 inches of H ₂ O
Relinquished by: (Signature) <i>Mike Murphy</i>			Date / Time 9-7-01 10:45		Received by: (Signature) <i>William</i>			Ship To:								
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:								
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>William</i>			Date / Time 9/19/01 15:57		Airbill Number UPS 1240119903 4051 3319						
										Chain of Custody Seal Numbers						

5-140013

Project No. Project Name *CHESHIRE MONITORING STUDY* 90101A
01AH08 *AKR 20010071* ARRIVAL DATE: *9/19/2001* DUE DATE: *9/26/2001*

Sampler

Mike Murphy

Cooler ID 1 Page 5-140013

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH08DO1	DO1	04/09/2001 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GUIDING HANDS SCHOOL	2	5-340055 1 to 2

Bottle No. 1
Parameter
Metal analysis by ICP

Bottle No. 2
Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH08SO1	SO1	04/09/2001 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GUIDING HANDS SCHOOL	2	5-340054 1 to 2

Bottle No. 1
Parameter
Metal analysis by ICP

Bottle No. 2
Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH08SO2	SO2	04/09/2001 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	2	5-340056 1 to 2

Bottle No. 1
Parameter
Metal analysis by ICP

Bottle No. 2
Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH08SO3	SO3	04/09/2001 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	2	5-340057 1 to 2

Bottle No. 1
Parameter
Metal analysis by ICP

Bottle No. 2
Parameter
PM10

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 09/04/2001 **LAB ARRIVAL DATE:** 09/19/2001 **DUE DATE:** 09/26/2001
DU NUMBER: 90101A **DATA SET NUMBER:** 20010071 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :** CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2001AH08D01	GUIDING HANDS SCHOOL	0.0118			
2	2001AH08S01	GUIDING HANDS SCHOOL	0.0114			
3	2001AH08S02	RVHS	0.0199			
4	2001AH08S03	ADDAVILLE	0.0315			
DATE OF ANALYSIS			09/21/2001			
ANALYST			<i>RSB</i>			

Reviewed by: E.S.

Date: 9/25/2001

Page 1 of 1

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page 1 of 1

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20010071 Facility: CHESHIRE MONITORING STUDY
 Parameter: SUSPENDED PARTICLES CRL.SOP: AIC-04.7

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: FAA Peer Reviewer: E.S.

Date: 9/21/2001 Date: 9/25/2001

Comments Attached? (Y/N) N

Data Set Number:	<u>20010071</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
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Review of suspended particle result for sample 2001AH08D01 (0.0118 g) (exposed filter Q6280063), field duplicate of sample 2001AH08S01 (0.0114 g)(exposed filter Q6280064) indicate that the tear and scratches in filter Q6280063 did not significantly affect recovery of suspended particles collected on those two filters. This assessment is limited to the field duplicate results only. Use the data with caution.

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CHESHIRE AIR MONITORING PROJECT

PM10

Parameter: Suspended Particles

Data Set Numbers: 20010071, 20010072, 20010073

Date of Analysis 9/21/2001

Analyst: FAA

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
Data set Number 20010071,72,73		
1.0000	0.9998	0.0002
1.0000	0.9999	0.0001
2.0000	2.0000	0.0000
2.0000	1.9998	0.0002
5.0000	4.9999	0.0001
5.0000	4.9998	0.0002

QC-SUMMARY FOR EXPOSED FILTERS

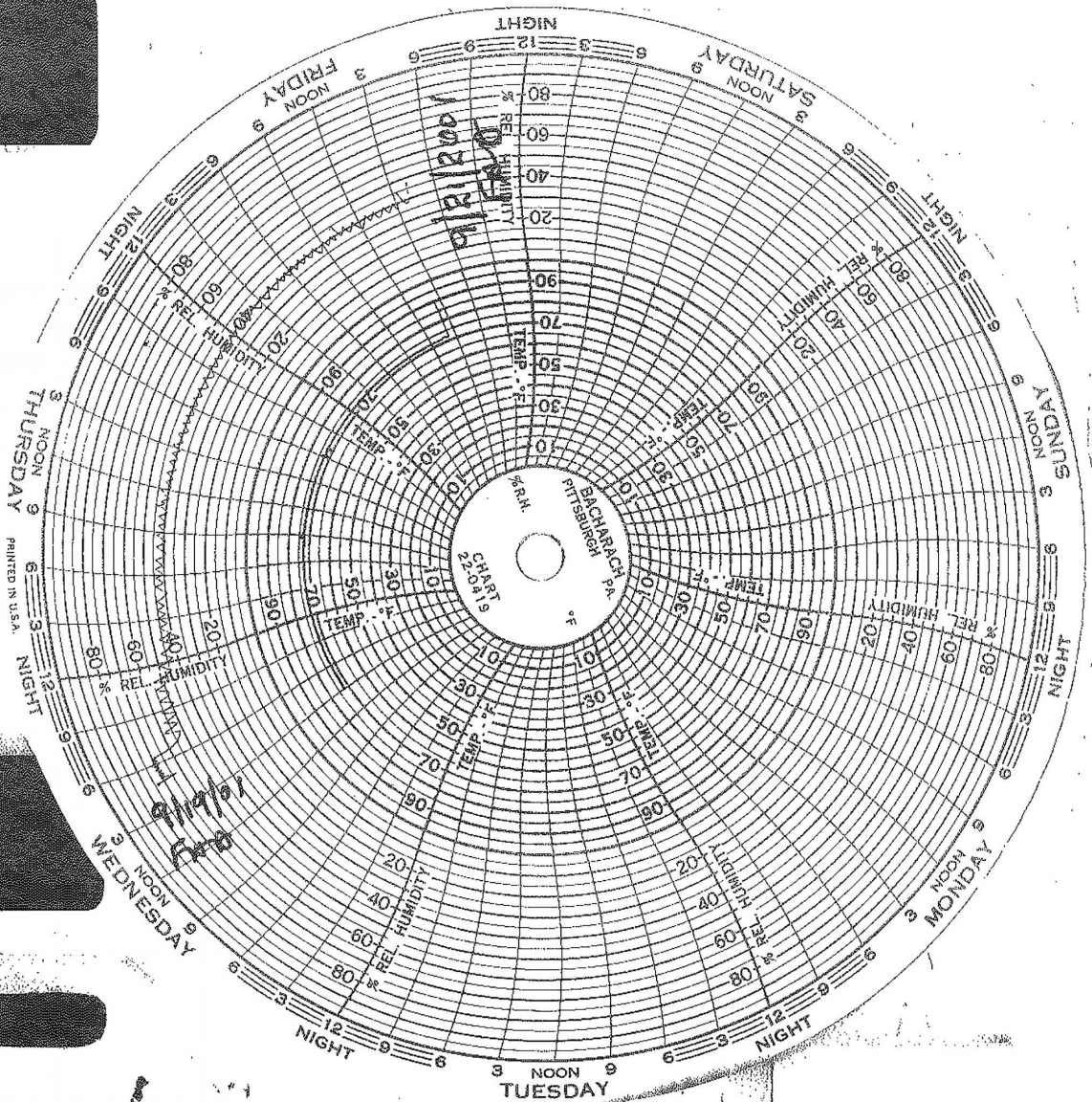
Filter ID	CRL Sample	Sampling	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Data set Number 20010071,72,73				
Q6280072	2001AH10S03	09/16/01	Analyst 1	4.3982
Q6280072	2001AH10S03	09/16/01	Analyst 2	4.3986
Differences (Limit +/- 5 mg).....				-0.0004
Q6280071	2001AH10S02	09/16/01	Analyst 1	4.3979
Q6280071	2001AH10S02	09/16/01	Analyst 2	4.3982
Differences (Limit +/- 5 mg).....				-0.0003
G1006688	2001AH08S02	09/04/01	Analyst 1	4.4428
G1006688	2001AH08S02	09/04/01	Analyst 2	4.4427
Differences (Limit +/- 5 mg).....				0.0001

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Data set Number 20010071											
Q6280063	2001AH08D01	09/04/01	Guiding Hands School	3013	19.50		0.00	4.3705	4.3823	0.0118	ERR
Q6280064	2001AH08S01	09/04/01	Guiding Hands School	3012	20.25		0.00	4.3691	4.3805	0.0114	ERR
G1006688	2001AH08S02	09/04/01	RVHS	3009	15.65		0.00	4.4083	4.4428	0.0199	ERR
Q6280062	2001AH08S03	09/04/01	Addaville	3011	19.90		0.00	4.3919	4.4234	0.0315	ERR
Data set Number 20010072											
Q6280065	2001AH09D01	09/10/01	Guiding Hands School	3013	19.50		0.00	4.3824	4.3951	0.0127	ERR
Q6280066	2001AH09S01	09/10/01	Guiding Hands School	3012	19.60		0.00	4.3774	4.3895	0.0121	ERR
Q6280067	2001AH09S02	09/10/01	RVHS	3009	19.75		0.00	4.3312	4.3433	0.0199	ERR
Q6280068	2001AH09S03	09/10/01	Addaville	3011	19.70		0.00	4.3858	4.3976	0.0118	ERR
Data set Number 20010073											
Q6280070	2001AH10D01	09/16/01	Guiding Hands School	3013	20.00		0.00	4.3585	4.3733	0.0148	ERR
Q6280069	2001AH10S01	09/16/01	Guiding Hands School	3012	18.95		0.00	4.3932	4.4086	0.0154	ERR
Q6280071	2001AH10S02	09/16/01	RVHS	3009	19.90		0.00	4.3773	4.3979	0.0199	ERR
Q6280072	2001AH10S03	09/16/01	Addaville	3011	19.70		0.00	4.4025	4.3982	-0.0043	ERR

Filters ID	TARE Wt. (g)	Deep. Wt (g)	Exposed Wt (g)	Exposed Deep. Wt (g)	Comments
Q6280083					
Q6280082	4.3897				
Q6280081	4.3563				
Q6280080	4.3521				
Q6280079	4.3681				
Q6280078	4.3542				
Q6280077	4.3320	4.3320 ks			
Q6280076	4.3650				
Q6280075	4.3640				
Q6280074	4.3634				
Q6280073	4.3861				
Q6280072	4.4025		4.3982	4.3986 ^{9/21/01 ES}	Tear of ml side
Q6280071	4.3773		4.3979	4.3982 ^{9/21/01 ES}	slight cut.
Q6280070	4.3585		4.3733	4.3735 ^{9/21/01 ES}	tear at fold (small)
Q6280069	4.3932		4.4086		
Q6280068	4.3858		4.3976		tear and pinhole on one side
Q6280067	4.3312	4.3300 ks	4.3433		
Q6280066	4.3774		4.3895		small tear and pinhole
Q6280065	4.3824		4.3951		2 large tears along one side
Q6280064	4.3691		4.3805		
Q6280063	4.3705		4.3823		Large tear in filter / scratch
Q6280062	4.3919		4.4234		pin hole size tear
Q6280061	4.3773		4.4345		
Q6280060	4.3806	4.3805 ks	4.4279	4.4278 th	
Q6280059	4.3591		4.4093		

FILTER ID #	TARE WT. (g)	DUPPLICATE WT. (g)	EXPOSED WT. (g)	EXPOSED DUP. WT. (g)	Comments and pr (ZERO value)	FILTER #
G1006694	4.4154	4.4145		4.4530		
G1006692	4.4112			4.4359		
G1006690	4.4085			4.4456		
G1006688	4.4083	4.4086 ⁰⁸⁶	small tear on exposed fil	4.4428	4.4427	
G1006686	4.4220	4.4212		4.4513	4.4517	
G1006685	4.4201			4.4398	4.4400	
G1006680	4.4226			4.4871	4.4870	
G1006683	4.4116		ES 4.4801	4.4800	4.4799	
G1006681	4.4283					
G1006677	4.3830	4.3820		4.4879	4.4878	
G1006676	4.3786			4.4257	4.4261	
G1006673	4.4143		ES 4.4644 4.4652	4.4643	4.4643	
G1006671	4.3722			4.4041	4.4039	
G1006669	4.4150		ES 4.4492	4.4485	4.4487	
G1006667	4.4152			4.4945	4.4946	
G1006665	4.4076		ES 4.4661	4.4665	4.4663	
G1006663	4.3962			4.4599		
G1006661	4.4097	4.4094	4.4736 ¹⁰	4.4734		
G1006659	4.4200			4.4864		
G1006657	4.4055			4.4724		
G1006656	4.4257			4.4717		
G1006695	4.3965					
7.16.01	AR					



US EPA Region 5 Field Sample



5-340055-2

Parameters PM10

12001002

Preservative None S M MD B D

Sample ID 01AH08DO1 X

Sampler Mike Murphy

Date 9-7-01

PM-10



AIRS

OPERATOR OLEPA

DATE 9-4-01

TSP

SITE

GHS # 3013

Dep

Q6280063

AVG. RECORDER RESP.

19.5

TEMP

°C

K

FINAL WT

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

STD

ACTUAL

PM-10

µg/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340054-2

Parameters PM10

20010071

Preservative None S M MD B D
Sample ID 01AH08SO1 X
Sampler Mike Murphy
Date 9-7-01

OPERATOR OEPA

DATE 9-4-01

AIRS

PM-10

TSP

SITE GHS # 3012 # Q6280064

AVG. RECORDER RESP.

20.25

TEMP

°C

K

FINAL WT

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340056-2

Parameters PM10

Preservative None S M M D B D
 Sample ID 01AH08SO2 X
 Sampler Mike Murphy
 Date 9-7-01

12001002

AIRS

PM-10 ☒

OPERATOR OEPA

DATE 9-4

TSP

SITE

RUHS # 3007

61006688

AVG. RECORDER RESP.

TEMP

°C

K

FINAL WT

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-340057-2

Parameters PM10

1601002

Preservative None S M MD B D
 Sample ID 01AH06S03 X
 Sampler Mike Murphy
 Date 9-7-01

PM-10 ☒

AIRS

OPERATOR OFPA

DATE 9-4

TSP

SITE Adelaide # 3011 # Q6280062

AVG. RECORDER RESP. 20.25

TEMP °C K FINAL WT

ELAPSED TIME 1440 MINUTES

PRESS mmHg INITIAL WT

FLOW m³/min

TOTAL FLOW m³ SAMPLE WT

STD ACTUAL PM-10 ug/m³

COMMENTS:

General information

Standard weights, actual (g)

Balanced weights, balanced (g)

9/6/2001 FNA	0.100000	0.099999
METTLER AG285	0.200000	0.200000
S/N 11120181838	20.00000	20.00002
	50.00000	50.00003

9/7/2001 FNA	1.00000	1.00000
SARTORIUS	1.00000	1.00000
S/N 37010119	2.00000	2.00000
	2.00000	2.00000
	5.00000	4.99999
	5.00000	4.99997

9/12/2001 FNA	1.00000	0.99998 ^{FNA 9/12/01}
SARTORIUS	1.00000	0.99999 ^{FNA 9/12/01}
S/N 37010119	2.00000	1.99999
	2.00000	1.99998
	5.00000	4.99998
	5.00000	5.00000

9/19/2001	0.100000	0.099999
	0.200000	0.200000

	STD WTS	ACTUAL
9/21/01	1.00000	0.99998
SARTORIUS	1.00000	0.99999
S/N 37010119	2.00000	2.00000
	2.00000	1.99998
	5.00000	4.99999
	5.00000	4.99998